

CLAIMS

What is claimed is:

- 1 1. A method, comprising:
2 receiving an optimized library via a network, the optimized library including at
3 least one optimized routine for a processing system; and
4 providing the optimized routine for use by an application executing on the
5 processing system to interact with a hardware entity of the processing system.
- 1 2. The method of claim 1 wherein the optimized routine comprises updated code
2 for use by the application to increase interaction efficiency with the hardware entity of
3 the processing system.
- 1 3. The method of claim 1 wherein the receiving the optimized library via the
2 network comprises receiving the optimized library via the network during an operating
3 system ("OS") runtime of the processing system.
- 1 4. The method of claim 3, further comprising:
2 receiving an optimization header packet via the network; and
3 determining that the optimization library is suitable for the processing system
4 based on a module type field within the optimization header packet.

1 5. The method of claim 4 wherein the module type field includes a globally
2 unique identifier (“GUID”) for determining that the optimization library is suitable for
3 the processing system.

1 6. The method of claim 4, further comprising:
2 ignoring other optimized libraries broadcast on the network if corresponding other
3 optimization packets are determined to be unsuitable for the processing system based on
4 the module type filed.

1 7. The method of claim 3, further comprising:
2 storing the optimized library to a nonvolatile storage device of the processing
3 system; and
4 inserting a entry into a pointer table of the processing system, the entry pointing
5 to the optimized library.

1 8. The method of claim 7 wherein the pointer table comprises one of a Secondary
2 System Description Table (“SSDT”) defined by an Advanced Configuration and Power
3 Interface (“ACPI”) and an Extensive Firmware Interface (“EFI”) configuration table.

1 9. The method of claim 7 wherein providing the optimized routine for use by the
2 application, comprises:
3 executing an optimization extension bound to the application, the optimization
4 extension to request a load of the optimized library;

5 querying the pointer table for the entry pointing to the optimized library stored
6 within the nonvolatile storage device; and
7 loading the optimized library into system memory of the processing system.

1 10. The method of claim 9 where providing the optimized routine for use by the
2 application further comprising:
3 advertising the entry point for the optimized routine of the optimized library to the
4 application, the entry point referencing a location within the system memory of the
5 optimized routine.

1 11. The method of claim 9 wherein the optimized library is further loaded into a
2 user mode space of the processing system.

1 12. The method of claim 1 wherein the processing system comprises a
2 management module of a rack of blade servers, and further comprising forwarding the
3 optimized library to one or more of the blade servers via an out-of-band channel.

1 13. A machine-accessible medium that provides instructions that, if executed by a
2 machine, will cause the machine to perform operations comprising: ✓
3 identifying that an optimized library transmitted over a network is intended for the
4 machine, the optimized library including at least one optimized routine for interacting
5 with a hardware entity of the machine;
6 receiving the optimized library via the network; and

7 advertising the optimized routine for use by an application executing in a user
8 mode space of the machine to interact with the hardware entity.

1 14. The machine-accessible medium of claim 13 wherein identifying the
2 optimized library, receiving the optimized library, and advertising the optimized library
3 are to be performed during an operating system (“OS”) runtime of the machine.

1 15. The machine-accessible medium of claim 14 wherein the optimized routine
2 comprises updated code to increase interaction efficiency with the hardware entity of the
3 machine.

1 16. The machine-accessible medium of claim 15 wherein the hardware entity
2 comprises a processor of the machine.

1 17. The machine-accessible medium of claim 13 wherein identifying that the
2 optimized library transmitted over the network is intended for the machine further
3 comprises performing operations, including:
4 receiving an optimization header packet via the network; and
5 determining that the optimization library is suitable for the machine based on a
6 module type field within the optimization header packet.

1 18. The machine-accessible medium of claim 13, further providing instructions
2 that, if executed by the machine, will cause the machine to perform further operations,
3 comprising:

4 storing the optimized library to a nonvolatile storage device of the machine; and
5 inserting an entry into a pointer table of the machine, the entry to point to the
6 optimized library.

1 19. The machine-accessible medium of claim 18, further providing instructions
2 that, if executed by the machine, will cause the machine to perform further operations,
3 comprising:

4 executing an optimization extension bound to the application, the optimization
5 extension to request a load of the optimized library;
6 querying the pointer table for the entry pointing to the optimized library stored
7 within the nonvolatile storage device; and
8 loading the optimized library into the user mode space of the machine.

1 20. A processing system, comprising:

2 a processor;
3 a network link communicatively coupled to the processor; and
4 a storage device communicatively coupled to the processor, the storage device
5 including instructions which when executed by the processor perform operations,
6 comprising:

7 monitoring traffic on the network link for an optimized library including at
8 least one optimized routine intended for the processing system;
9 receiving the optimized library via the network link; and
10 advertising the optimized routine to a user mode space of the processing
11 system for use by an application to interact with a hardware entity of the
12 processing system.

1 21. The processing system of claim 20 wherein the instructions are to be
2 executed by the processing system during an operating system runtime of the processing
3 system.

1 22. The processing system of claim 20 wherein execution of the instructions
2 further performs operations comprising:
3 parsing an optimization header packet received via the network link; and
4 recognizing whether the optimized library is intended for the processing system
5 based on a module type field of the of the optimization header packet.

1 23. The processing system of claim 20 wherein the application includes an
2 optimization extension to request a load of the optimized library upon execution of the
3 application.

1 24. The processing system of claim 20 wherein the hardware entity is the
2 processor.

1 25. The processing system of claim 24 wherein the optimized routine comprises
2 updated code for interacting with the processor in a more efficient manner.

1 26. A system, comprising: /
2 a chassis having a plurality of slots to receive a plurality of blade servers; and
3 a management module mounted to the chassis and communicatively coupled to
4 each of the plurality of slots to communicate with the plurality of blade servers, the
5 management module to receive an optimized library via a network, the optimized library
6 including at least one optimized routine for interacting with a hardware entity, the
7 management module to forward the optimized library to one or more of the plurality of
8 blade servers.

1 27. The system of claim 26 wherein the management module is configured to
2 receive the optimized library during an operating system ("OS") runtime and to forward
3 the optimized library during OS runtimes of the plurality of blade servers.

1 28. The system of claim 26 wherein the management module includes a network
2 agent to monitor traffic on the network to identify the optimized library as intended for
3 the one or more of the plurality of blade servers.

1 29. The system of claim 26 wherein the management module forwards the
2 optimized library to the plurality of blade servers via an out-of-band communication
3 channel.

1 30. The system of claim 26 wherein the optimized routine comprises updated
2 code for an application executing on the one or more of the plurality of blade servers to
3 interact with the hardware entity in a more efficient manner and wherein the hardware
4 entity comprises a processor of each of the one or more plurality of blade servers.